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# SOLVING THE MYSTERY



United States  
Department of  
Agriculture

Food and  
Nutrition  
Service

Program Aid  
Number 1331

## Food Buying Guide for Child Nutrition Programs

**Student**

West Virginia Department of Education



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# STUDENT WORKSHEETS

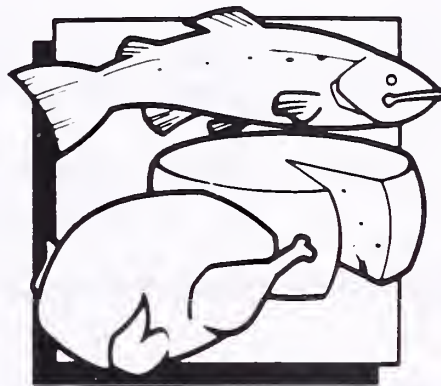


United States  
Department of  
Agriculture

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Nutrition  
Service

Program Aid  
Number 1331

## Food Buying Guide for Child Nutrition Programs



*Other*  
**FOODS**



THE  
JOURNAL OF  
THE  
ROYAL ANTHROPOLOGICAL INSTITUTE



## ARE YOU IN THE GRIPS OF MATH AVOIDANCE??!!

- \_\_\_\_\_ Is the mere sight of an algebraic equation enough to give you a headache, stomachache, backache and hives??!!
- \_\_\_\_\_ Did you wish you could be permanently excused from your math class?
- \_\_\_\_\_ Do problems in math seem as foreign to you as Egyptian hieroglyphics?
- \_\_\_\_\_ Do you feel you are in over your head with math; that no amount of practice or trying will make it understandable?
- \_\_\_\_\_ Does learning more math seem useless to you -- you'll never use it at work or at home?
- \_\_\_\_\_ Would you avoid any job that requires math rather than take a math class?
- \_\_\_\_\_ Do you believe it is less important for females than males to be good in math?
- \_\_\_\_\_ Do you feel deep down inside that ONLY YOU feel stupid in math?



If you answer "yes" to any questions,  
you may be experiencing a condition called  
"math anxiety" or, more serious yet, "math avoidance."

# THE HISTORY OF THE

## REIGN OF KING CHARLES THE FIRST

BY SAMUEL JOHNSON

IN THREE VOLUMES

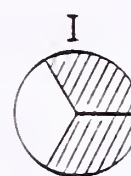
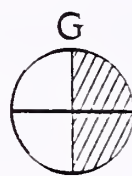
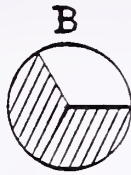
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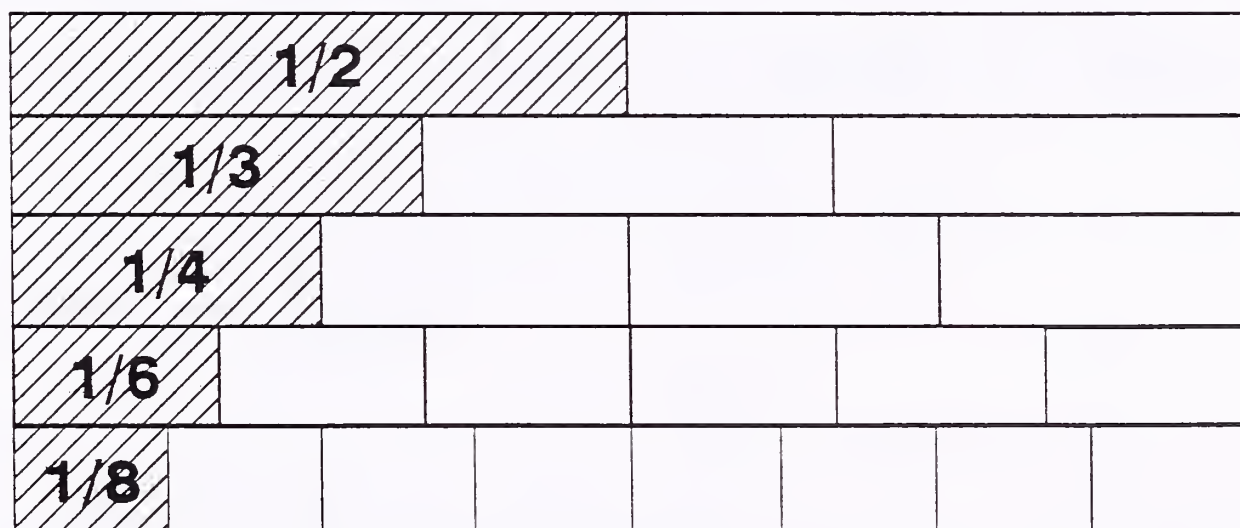


## MATH WORKSHEET 1 — FRACTIONS

I. Write the correct fractions for the shaded part of each figure.



II. This chart will help you work (A) and (B) below.



A. Circle the one that is greater.

$\frac{1}{2}$  or  $\frac{1}{4}$      $\frac{1}{2}$  or  $\frac{1}{6}$      $\frac{1}{8}$  or  $\frac{1}{4}$      $\frac{1}{6}$  or  $\frac{1}{3}$      $\frac{2}{3}$  or  $\frac{5}{6}$      $\frac{3}{8}$  or  $\frac{1}{4}$      $\frac{5}{8}$  or  $\frac{3}{4}$

B. Circle the one that is less.

$\frac{1}{3}$  or  $\frac{1}{2}$      $\frac{1}{4}$  or  $\frac{1}{6}$      $\frac{1}{8}$  or  $\frac{1}{6}$      $\frac{3}{4}$  or  $\frac{5}{6}$      $\frac{3}{4}$  or  $\frac{2}{3}$      $\frac{1}{2}$  or  $\frac{3}{4}$      $\frac{3}{8}$  or  $\frac{1}{4}$



## MATH WORKSHEET 2 -- FRACTIONS

A. Add the following fractions:

$$\begin{array}{r} \frac{1}{4} \\ + \frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{3} \\ + \frac{2}{3} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{2} \\ + \frac{3}{2} \\ \hline \end{array}$$

$$\begin{array}{r} 1\frac{1}{2} \\ + \frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} 2\frac{2}{4} \\ + 1\frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{4} \\ + \frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} 1\frac{1}{3} \\ + 1\frac{1}{4} \\ \hline \end{array}$$

B. Subtract the following fractions:

$$\begin{array}{r} \frac{2}{3} \\ - \frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ - \frac{2}{3} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{6}{8} \\ - \frac{3}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 1\frac{2}{3} \\ - \frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 3\frac{3}{4} \\ - 1\frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{2}{3} \\ - \frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} 2\frac{3}{4} \\ - \frac{1}{2} \\ \hline \end{array}$$

C. Multiply the following fractions:

$$\frac{1}{2} \times \frac{2}{3} = \underline{\hspace{2cm}}$$

$$\frac{1}{4} \times \frac{3}{4} = \underline{\hspace{2cm}}$$

$$\frac{1}{8} \times \frac{1}{2} = \underline{\hspace{2cm}}$$

$$40 \times \frac{1}{2} = \underline{\hspace{2cm}}$$

$$\frac{5}{6} \times \frac{2}{3} = \underline{\hspace{2cm}}$$

D. Divide the following fractions:

$$3 \div \frac{1}{2} = \underline{\hspace{2cm}}$$

$$\frac{2}{3} \div \frac{1}{4} = \underline{\hspace{2cm}}$$

$$\frac{3}{4} \div \frac{1}{2} = \underline{\hspace{2cm}}$$

$$6 \div \frac{2}{3} = \underline{\hspace{2cm}}$$



## MATH PRACTICE LAB

Directions: Work by yourself. Go to a laboratory station. Answer the questions on the worksheet for that station, and then move on to another station. Complete all lab stations filling in this worksheet.

## STATION 1

1. a. Fill  $\frac{1}{4}$  cup dry measuring cup with sugar and pour it into the liquid measure provided.
- b. Fill  $\frac{1}{2}$  cup dry measuring cup with sugar and pour it into the same liquid measure.
- c. What is this fraction? \_\_\_\_\_
- d. Add  $\frac{1}{4}$  cup more to sugar in the liquid measure.
- e. What is the new fraction? \_\_\_\_\_
- f. How many cup(s) is this? \_\_\_\_\_ cups

## STATION 2

2. a. Fill  $\frac{1}{3}$  cup with sugar and pour it into the liquid measure provided.
- b. Repeat a. and pour into the same cup.
- c. What is the new fraction? \_\_\_\_\_
- d. Is this more or less than a cup? \_\_\_\_\_
- e. What must be done to make this exactly one cup? \_\_\_\_\_

## STATION 3

3. a. Measure level tablespoons of sugar into a  $\frac{1}{4}$  cup dry measure.
- b. How many tablespoons does it take to fill the  $\frac{1}{4}$  cup? \_\_\_\_\_
- c. What fraction does 1 tablespoon represent? \_\_\_\_\_

## STATION 4

$\frac{a}{b}$  = part  
(Remember  $\frac{a}{b}$  = total number of parts)

4. a. How many servings are there in this pizza? \_\_\_\_\_
- b. Students eat three pieces of this pizza. What fraction is this?  
\_\_\_\_\_
- c. How many pieces are left? \_\_\_\_\_





## MATH PRACTICE LAB, Continued

## STATION 5

5. a. If half the pieces of this pizza are eaten, what fraction of the pizza is left?

$$\frac{a}{16} \quad a = \underline{\hspace{2cm}}$$

- b. This is the same as what other fraction?

## STATION 6

1. a. Cut the apple into two pieces.  
b. What fraction is each piece of this apple?
2. a. Cut each piece into two more pieces.  
b. What fraction is each piece now?                       
c. What fraction is now represented by all four pieces?                       
d. What is another way of writing the above fraction?
3. a. Eat one piece of the apple.  
b. How many pieces are left?                       
c. What fraction of the apple is left?
4. a. Give one piece of apple to someone in the group.  
b. Now how many pieces are left?                       
c. What new fraction is this?



## DECIMAL EQUIVALENT REFERENCE

## DECIMAL TO FRACTION

$$\frac{1}{8} = .125$$

$$\frac{1}{4} = .25$$

$$\frac{1}{2} = .50$$

$$\frac{1}{3} = .33$$

$$\frac{2}{3} = .66$$

$$\frac{3}{4} = .75$$

=====

 Decimal Weight Equivalents

Ounces	Pounds	Ounces	Pounds
1 =	0.06	16 =	1.00
2 =	.12	32 =	2.00
3 =	.19	35 =	2.19
4 =	.25	48 =	3.00
5 =	.31	64 =	4.00
6 =	.38	71 =	4.44
7 =	.44	80 =	5.00
8 =	.50	96 =	6.00
9 =	.56	106 =	6.63
10 =	.62	112 =	7.00
11 =	.69	128 =	8.00
12 =	.75	141 =	8.82
13 =	.81	144 =	9.00
14 =	.88	160 =	10.00
15 =	.94		



## MATH WORKSHEET 3

Change the following fractions to decimals:

$$\frac{1}{4} = \underline{\hspace{2cm}}$$

$$\frac{1}{2} = \underline{\hspace{2cm}}$$

$$\frac{2}{3} = \underline{\hspace{2cm}}$$

$$\frac{3}{4} = \underline{\hspace{2cm}}$$

$$\frac{1}{8} = \underline{\hspace{2cm}}$$

$$\frac{1}{3} = \underline{\hspace{2cm}}$$

=====

Round the following:

$$6.89 = \underline{\hspace{2cm}}$$

$$25.12 = \underline{\hspace{2cm}}$$

$$180.61 = \underline{\hspace{2cm}}$$

$$93.30 = \underline{\hspace{2cm}}$$

$$.73 = \underline{\hspace{2cm}}$$

$$9.22 = \underline{\hspace{2cm}}$$

$$.51 = \underline{\hspace{2cm}}$$

$$154.48 = \underline{\hspace{2cm}}$$





## MATH WORKSHEET 4 - DECIMALS

A. Add the decimals:

$.6 + .8 = \underline{\hspace{2cm}}$

$$\begin{array}{r} 1.61 \\ + .02 \\ \hline \end{array}$$

$$\begin{array}{r} 3.14 \\ + .6 \\ \hline \end{array}$$

$$\begin{array}{r} 3.27 \\ .61 \\ + 1.02 \\ \hline \end{array}$$

$1.8 + .2 = \underline{\hspace{2cm}}$

$.01 + .5 = \underline{\hspace{2cm}}$

B. Subtract the decimals:

$6.0 - 2.4 = \underline{\hspace{2cm}}$

$$\begin{array}{r} 28.4 \\ - .6 \\ \hline \end{array}$$

$$\begin{array}{r} 14.7 \\ - 3.02 \\ \hline \end{array}$$

$$\begin{array}{r} 18.5 \\ - 7.25 \\ \hline \end{array}$$

$5.08 - 4.9 = \underline{\hspace{2cm}}$

C. Multiply the decimals:

$.81 \times 3 = \underline{\hspace{2cm}}$

$$\begin{array}{r} 250 \\ \times 6.4 \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ \times 2.54 \\ \hline \end{array}$$

$$\begin{array}{r} 340 \\ \times 1.8 \\ \hline \end{array}$$

$125 \times 18.5 = \underline{\hspace{2cm}}$

D. Divide the decimals:

$1.76 \div .92 = \underline{\hspace{2cm}} \quad 375 \div .75 = \underline{\hspace{2cm}} \quad 19 \div 1.6 = \underline{\hspace{2cm}} \quad 250 \div 3.2 = \underline{\hspace{2cm}}$



## MATH REVIEW WORKSHEET

(1) $\frac{1}{3}$	(2) $\frac{3}{8}$	(3) $1\frac{3}{4}$	(4) $6\frac{1}{2}$	(5) $3\frac{2}{3}$	(6) $5\frac{5}{8}$
$\underline{+1/3}$	$\underline{+3/8}$	$\underline{+1/4}$	$\underline{+1/4}$	$\underline{-2\frac{1}{3}}$	$\underline{-3/8}$

(7)  $\frac{1}{2}$  of  $\frac{3}{4} =$  \_\_\_\_\_

(8)  $\frac{1}{4} \times \frac{1}{6} =$  \_\_\_\_\_

(9)  $\frac{2}{3} \times \frac{3}{4} =$  \_\_\_\_\_

(10)  $\frac{3}{8} \times \frac{1}{4} =$  \_\_\_\_\_

(11)  $\frac{1}{2} \div \frac{1}{4} =$  \_\_\_\_\_

(12)  $\frac{1}{3} \div \frac{2}{3} =$  \_\_\_\_\_

(13)  $38 \div \frac{1}{2} =$  \_\_\_\_\_

(14)  $630 \div 1\frac{1}{2} =$  \_\_\_\_\_



## LOCATING SECTIONS WORKSHEET

For each food listed, record the section title and page number on which each begins in the yield tables of the Buying Guide.

	Title of Section	Page No.
1. Fresh Grapes	_____	_____
2. Succotash	_____	_____
3. Salad Dressing	_____	_____
4. American Cheese	_____	_____
5. USDA Ground Beef	_____	_____
6. Taco Shells	_____	_____
7. Peanut Butter	_____	_____
8. Fresh Eggs	_____	_____
9. Dry Beans (Great Northern)	_____	_____
	_____	_____
10. Tomato Soup	_____	_____





## LOCATING INFORMATION WORKSHEET

Find and record the following information.

1. How many kinds of chicken products are listed in the Index?

\_\_\_\_\_

2. What is the main difference in the 2 kinds of frankfurters listed in the Index?

\_\_\_\_\_

3. What is the difference between the two kinds of frozen fish sticks listed in the Index?

\_\_\_\_\_

4. What is the difference in the orange juice listed in the Index?

\_\_\_\_\_

5. What three forms of apples are listed in the Index?

(1) \_\_\_\_\_ (2) \_\_\_\_\_ (3) \_\_\_\_\_



## IDENTIFYING COLUMNS WORKSHEET

Find the answers to the following questions in the USDA Buying Guide.

1. Which column tells how many servings you can get from a can, pound, or other unit? \_\_\_\_\_
2. Which column tells the amount of food (units) you will need to buy for 100 servings? \_\_\_\_\_
3. Which column tells the name of the food and describes it? \_\_\_\_\_
4. Which column tells you the amount of food per serving? \_\_\_\_\_
5. Which column tells how much a serving will count toward the meal component requirement? \_\_\_\_\_
6. Which column tells the amount of cooked meat that one pound of raw meat (as purchased) will yield? \_\_\_\_\_



## USING COLUMN INFORMATION WORKSHEET

Use the Buying Guide to answer these questions, then write the columns and pages where you found the information.

- |   | Column | Page  |
|---|--------|-------|
| 1. What two serving sizes are given for regular spaghetti? _____ and _____.   | _____  | _____ |
| 2. What are the serving sizes given for the following ground beef items:  | _____  | _____ |
| a. Market style (not more than 30% fat)   |        |       |
| _____ and _____   |        |       |
| b. USDA - donated (not more than 24% fat)   |        |       |
| _____ and _____   |        |       |
| c. Patties, frozen USDA - donated   |        |       |
| _____.  |        |       |
| 3. What are the purchase units listed for canned fruit cocktail? _____  | _____  | _____ |
| 4. What kinds of apricots use the pound as a unit?  | _____  | _____ |
| _____, _____, and _____   |        |       |
| 5. How many 2 oz. servings will a 40 lb. box of whole, cut-up, 8 pieces frying chicken yield? _____                   | _____  | _____ |
| 6. How many 1/4 cups of mature, fresh, chopped onions will one pound of onions make? _____                            | _____  | _____ |
| 7. How many pounds of fresh head lettuce are needed for 100 servings of 1/4 cup vegetable pieces with dressing? _____ | _____  | _____ |
| 8. How many No. 10 cans of peanut butter are needed for 100 2 tablespoon servings? _____                              | _____  | _____ |





## BUYING GUIDE PRACTICE LAB

STATION 1 1 LB. BOX CRACKERS, SALTINE

- a. On what page of the Buying Guide is this food listed? \_\_\_\_\_
- b. What serving sizes are given? \_\_\_\_\_  
\_\_\_\_\_
- c. What is the purchase unit of this product? \_\_\_\_\_
- d. How many units are needed for 100 students to have one bread servings? \_\_\_\_\_

STATION 2 NO. 10 CAN BAKED BEANS

- a. How is this food listed in the Buying Guide? \_\_\_\_\_
- b. What is the purchase unit? \_\_\_\_\_
- c. In what section(s) of the Buying Guide is this food listed? \_\_\_\_\_  
\_\_\_\_\_

STATION 3 PICTURE OF USDA AND MARKET STYLE BEEF

- a. What is the purchase unit of each food? \_\_\_\_\_
- b. What are the serving sizes listed for each? \_\_\_\_\_  
\_\_\_\_\_
- c. How do these products differ? \_\_\_\_\_
- d. Which product yields the greater number of servings? \_\_\_\_\_

STATION 4 NO. 10 CAN SLICED PINEAPPLE

- a. How is this food listed in the Buying Guide? \_\_\_\_\_
- b. What other styles of this food are listed? \_\_\_\_\_  
\_\_\_\_\_
- c. How many No. 10 cans would you need to purchase to serve 100- 1/4 cup servings? \_\_\_\_\_
- d. How many No. 2 cans would you purchase for 100- 1/4 cup servings? \_\_\_\_\_  
\_\_\_\_\_

STATION 5 NO. 2 1/2 CAN (29 oz.) FRUIT COCKTAIL

- a. Under what category is this food listed? \_\_\_\_\_ Page? \_\_\_\_\_
- b. What purchase units are listed? \_\_\_\_\_
- c. What is the purchase unit of this product? \_\_\_\_\_
- d. How many 1/4 cup servings will one of these units yield? \_\_\_\_\_



## Buying Guide Practice Lab

Page 2

STATION 6 NO. 10 CAN (106 oz.) TOMATO SAUCE

a. How many of this unit will you need to purchase for 100 - 1/4 cup servings of this product? \_\_\_\_\_

b. What are the serving sizes listed for:

	Serving Size	Counts toward the meal pattern:
(1) tomato paste?	_____	_____
(1) tomato puree?	_____	_____

c. Why do you think serving sizes are listed differently? \_\_\_\_\_

STATION 7 SMALL APPLE

a. What will this small apple count toward the meal pattern?

\_\_\_\_\_

b. What will 1/2 of it contribute? \_\_\_\_\_

STATION 8 MEDIUM BANANA

a. What does half of this banana count toward the meal pattern?

\_\_\_\_\_

STATION 9 SIX STRIPS OF CARROT (4" x 1/2" each)

a. This serving of carrot sticks may be counted as:

\_\_\_\_\_ 1/8 cup

\_\_\_\_\_ 1/4 cup

\_\_\_\_\_ 1/2 cup

STATION 10 ONE CANNED PEACH HALF

a. This peach half may be counted as:

\_\_\_\_\_ 1/4 cup

\_\_\_\_\_ 1/2 cup

(1/93)



## COLUMNS PRACTICE WORKSHEET

Use the Buying Guide to answer these questions, then write the column and page numbers where you found the information.

- |   | Column | Page  |
|---|--------|-------|
| 1. The serving sizes listed for mozzarella cheese are _____ and _____                               | _____  | _____ |
| 2. How many servings of ground beef can you get from one pound of the following:                    | _____  | _____ |
| USDA donated 1 oz. _____  |        |       |
| Market style (not more than 30% fat)  |        |       |
| 1 1/2 oz. _____   |        |       |
| USDA donated (not more than 24% fat)  |        |       |
| 1 1/2 oz. _____   |        |       |
| Patties, frozen, USDA _____   |        |       |
| 3. What purchase units are listed for grated or flaked tuna? _____                                  | _____  | _____ |
| 4. The number of graham crackers (.7 oz.) for one bread serving is _____                            | _____  | _____ |
| 5. How many pounds of turkey roast are needed for 100 1 1/2 oz. servings of cooked turkey?<br>_____ | _____  | _____ |
| 6. What kinds of units are listed for blueberries?<br>_____, _____, _____, _____                    | _____  | _____ |
| 7. How many 1/2 cup servings will one pound of regular, rolled oats make? _____                     | _____  | _____ |
| 8. How many dozen taco shells will be needed to make 100 bread servings? _____                      | _____  | _____ |



## USING THE BUYING GUIDE -- A Solution -1

Steps to determine the amount of food to prepare when the serving size you need is the SAME as the one listed in the Buying Guide.

1. Decide the number of servings needed.
2. Decide serving size.
3. Look in column 4 of Buying Guide.

**If serving size you need is the SAME:**

- A. Use number in column 5;
- B. Divide this number by 100 or move the decimal 2 places to left;  
12. becomes .12      1.4 becomes .014
- C. Multiply this number times the number of servings needed.

[illegible]

**Examples:**

1. USDA Ground Beef (BG page 26) for 250 1 1/2 oz. servings
2. Green Beans (cut, No. 10 can) (BG page 66) for 170 1/4 c. servings





## USING THE BUYING GUIDE --- A Solution - 2

Steps to determine the amount of food to prepare when the serving size you need is MORE than that listed in the Buying Guide.

1. Decide the number of servings needed.
2. Decide serving size.
3. Look in column 4 of Buying Guide.

### If serving size you need is MORE:

- A. Double serving size;
- B. Double number in column 5;
- C. Move the decimal in column 5 two places to the left;
- D. Multiply this number by number of servings needed.

=====

### Examples:

1. Spaghetti (BG page 125) for 400 1 c. servings

2. Broccoli (frozen) (BG page 73) for 235 1/2 c. servings



### USING THE BUYING GUIDE — A Solution – 3

Steps to determine the amount of food to prepare when the serving size you need is LESS than that listed in the Buying Guide.

1. Decide the number of servings needed.
2. Decide serving size.
3. Look in column 4 of Buying Guide.

**If serving size you need is LESS:**

- Take half of the serving size;
- Take half of number in column 5;
- Move the decimal in column 5 two places to the left;
- Multiply this number by number of servings needed.

Examples:

1. American Cheese (BG page 30) for 85 1/2 oz. servings

2. Crackers, Saltines (BG page 124) for 136 1/2 oz. servings



## USING THE BUYING GUIDE

## SOLVE THE MYSTERY

Use this Buying Guide Table to answer questions. Answers should be rounded up. You may use a calculator.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BEANS, GREEN Fresh	Pound	11.1	1/4 cup cooked vegetable	9.0	1 lb AP = 0.88 lb ready-to-cook
Canned Whole	No. 10 can (101 oz)	52.2	1/4 cup vegetable	2.0	1 No. 10 can = about 58 oz (13 cup) drained vegetable
	No. 2 1/2 can (28 oz)	14.4	1/4 cup heated vegetable	7.0	1 No. 2 1/2 can = about 16 oz (3 5/8 cup) drained vegetable

- What unit sizes are given for canned, whole green beans? \_\_\_\_\_
- How many No. 10 cans of green beans are needed for 100 1/4 cup servings of vegetable? \_\_\_\_\_
- How many No. 10 cans are needed for 100 1/2 cup servings of vegetable? \_\_\_\_\_
- How many No. 10 cans are needed for 170 1/4 cup servings of vegetable? \_\_\_\_\_
- How many No. 10 cans are needed for:  
120 1/4 cup servings plus 180 1/2 cup servings? \_\_\_\_\_
- How many cups of drained vegetable will you get from a No. 10 can? \_\_\_\_\_



## SOLVE THE MYSTERY

Page 2

Use your Buying Guide and a calculator to figure the amounts of food needed in each problem. (Note: To check your answers with the answer sheet, do not round your answers.)

=====

You are planning to serve 175 middle school students:

Hamburger on Bun (2 oz. meat)  
French Fries (1/2 cup)  
Carrot Sticks (1/4 cup)  
Milk

- \_\_\_\_\_ 7. How many pounds of USDA donated ground beef are needed?
- \_\_\_\_\_ 8. If you decided to use market-style beef, how many pounds would be needed?
- \_\_\_\_\_ 9. How many pounds of frozen shoestring french fries are needed?
- \_\_\_\_\_ 10. How many pounds of carrots are needed?

=====





**USING THE BUYING GUIDE -- The Solution**

Steps to determine the amount of food to prepare:

- A. Decide the number of servings needed.
- B. Decide serving size.
- C. Look in column 4 of Buying Guide.

1. IF SERVING SIZE YOU NEED IS THE SAME:

- a. Use number in column 5;
- b. Divide this number by 100 or move the decimal two places to left.

Examples: 12. becomes .12      1.4 becomes .014

- c. Multiply this number by number of servings needed.

2. IF SERVING SIZE YOU NEED IS MORE:

- a. Double serving size;
- b. Double number in column 5;
- c. Divide this number by 100 or move the decimal in column 5 two places to the left.

Examples: 12. becomes .12      1.4 becomes .014

- d. Multiply this number by number of servings needed.

3. IF SERVING SIZE YOU NEED IS LESS:

- a. Take half of the serving size;
- b. Take half of number in column 5;
- c. Divide this number by 100 or move the decimal in column 5 two places to the left.

Examples: 12. becomes .12.      1.4 becomes .014

- d. Multiply this number by number of servings needed.



# USING THE BUYING GUIDE Practice Problems

Use your Buying Guide and a calculator to figure the amounts of food needed in each problem. (Note: To check your answers with the answer sheet, do not round your answers.)

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You are planning to serve this menu to 285 students in Kindergarten through third grades.

Creamed Chicken (1 1/2 oz. meat)  
Whipped Potatoes (1/4 cup)  
Green Beans (1/4 cup)  
Biscuit - Butter  
Milk

- \_\_\_\_\_ 1. How many No. 2-1/2 cans of USDA donated boned canned chicken are needed?
  - \_\_\_\_\_ 2. How many pounds of dehydrated potato flakes are needed?
  - \_\_\_\_\_ 3. How many No. 10 cans of canned, cut green beans are needed?
- =====

=====

You are planning to serve 230 high school students the following menu:

Vegetable Beef Soup (1 oz. meat, 1/4 cup vegetable)  
Grilled Cheese Sandwich  
Sliced Peaches  
Crackers  
Milk

- \_\_\_\_\_ 4. How many No. 2-1/2 cans of USDA donated beef with natural juice are needed?
  - \_\_\_\_\_ 5. For this menu, how many ounces of cheese must be served to each student to complete the meat/meat alternate requirement?
  - \_\_\_\_\_ 6. How many pounds of American cheese will be needed to give each student the amount required?
  - \_\_\_\_\_ 7. How many No. 10 cans of mixed vegetables are needed?
  - \_\_\_\_\_ 8. For this menu, what size serving of peaches is needed to complete the fruit/vegetable requirement?
  - \_\_\_\_\_ 9. How many No. 10 cans of sliced canned peaches are needed to serve this amount (see # 12) to each student?
  - \_\_\_\_\_ 10. How many saltine crackers are needed to equal one serving of bread?
  - \_\_\_\_\_ 11. How many pounds of saltine crackers are needed to serve this amount (see # 14) to each student?
- =====





USING THE BUYING GUIDE  
Practice Problems, Continued.

=====

You are planning to serve 400 elementary students, of which 320 students are Kindergarten through third grade and 80 students are in fourth grade:

Spaghetti with Meat Sauce  
Lettuce Salad  
Roll - Butter  
Gelatin with Fruit  
Milk

- \_\_\_\_\_12. How many pounds of USDA donated ground beef will be needed?
- \_\_\_\_\_13. If you planned to serve fourth graders  $\frac{3}{4}$  cup and other students  $\frac{1}{2}$  cup of spaghetti, how many pounds will be needed?
- \_\_\_\_\_14. If you serve  $\frac{1}{2}$  cup lettuce pieces with dressing to all students, how many pounds of head lettuce are needed?
- \_\_\_\_\_15. How much fruit will be needed for each serving of gelatin?
- \_\_\_\_\_16. How many No. 10 cans of fruit cocktail are needed to serve this amount (see # 19)?
- =====

=====

You are planning to serve the following menu to 225 high school students:

Hot Dogs  
Nachos with Cheese  
Celery Sticks ( $\frac{1}{4}$  cup)  
Baked Beans ( $\frac{1}{2}$  cup)  
Milk

- \_\_\_\_\_17. If you serve hot dogs with 10 per pound, how many pounds are needed to serve each student one?
- \_\_\_\_\_18. If serving 10 count hot dogs, how many additional ounces of meat/meat alternate are needed for each student?
- \_\_\_\_\_19. If you prepare cheese sauce, how many pounds of American cheese will be needed to complete the meat/meat alternate requirement?
- \_\_\_\_\_20. How many pounds of fresh celery are needed?
- \_\_\_\_\_21. How many pounds of dry pinto beans are needed?
- =====



USING THE BUYING GUIDE  
Practice Problems, Continued.

Try these problems, if you are ready for a real challenge!

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- \_\_\_\_\_ 22. You are serving spaghetti with meat sauce to 350 middle school students. You have 7 pounds of cooked ground beef in the freezer. How many pounds of raw USDA Donated ground beef must be added to allow each student the required meat/meat alternate serving?
- \_\_\_\_\_ 23. A recipe calls for one No. 10 can of drained pinto beans. How many 1/2 cup servings will this yield? (See Meat/Meat Alternate Section.)
- \_\_\_\_\_ 24. A dessert recipe calls for 3 No. 303 cans of tart red cherries, drained. How many 1/4 cup servings will this yield?
- \_\_\_\_\_ 25. You are making beef stew from 25 pounds of chuck roast with bone. How many one ounce serving will this yield?
- \_\_\_\_\_ 26. You plan to serve this stew to 150 high school students. You will complete the meat/meat alternate with cheese sticks. How many pounds of cheese are needed?
- \_\_\_\_\_ 27. What size portion of cheese will each student be served?

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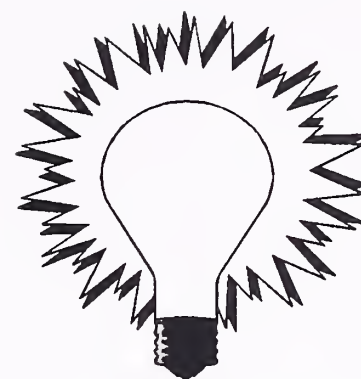


**Buying Guide****Practice Problems Answer Sheet**

1.	20.52	20	18.45
2.	5.7	21	18.45
3	6.555	22.	53.2
4.	15.64	23.	23.25
5.	1	24.	21
6.	14.49	25.	180
7.	5.75	26.	7.50
8.	1/2 cup	27.	.8 oz.
9.	9.66		
10.	8		
11.	11.27		
12.	55.04		
13.	26.96		
14.	57.6		
15.	1/4 cup		
16.	8.8		
17.	22.5		
18.	.4		
19.	5.625		



# What Do YOU Think?



Put a check in the column/blank that best answers the questions.

[1-7] How <u>IMPORTANT</u> do you think each of the following is?		VERY	SOME- WHAT	NOT AT ALL
1.	How to locate foods in the table of the Buying Guide			
2.	The kinds of information found in each column of the Buying Guide			
3.	Where to find information such as can sizes, portion or scoop sizes, meal pattern requirements, etc.			
4.	How to apply math skills when figuring how much food to prepare.			
5.	How to figure the amount of food needed when one serving size is to be given to all students.			
6.	How to figure the amount of food needed when two different serving sizes are to be served.			
7.	How to figure the amount of food needed in special cases, such as when additional food is needed to complete serving requirements (for example, how much meat is needed in hot dog sauce).			
8.	How often did you use the Buying Guide last month? _____ a. daily or weekly _____ b. once or twice _____ c. never			
9.	How often do you think you will use the Buying Guide in the future? _____ a. daily or weekly _____ b. monthly _____ c. almost never _____ d. never			
10.	If you do not use the Buying Guide, in most cases how do you figure the amount of food needed? _____ a. guess _____ b. look at past records _____ c. find a recipe _____ d. other (explain)			
11.	Rate these parts of the workshop:	VERY HELPFUL	SOMEWHAT HELPFUL	NOT HELPFUL
	A. Basic Math Skills			
	B. Using the Buying Guide			
	C. Solving Problems with the Buying Guide			
12.	Do you have other comments?			





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